

Method and Apparatus for Testing Electromagnetic Connectivity in a Drill String

Abstract

A method and apparatus for testing electromagnetic connectivity in a drill string are disclosed. The method includes transmitting a test signal down a transmission path in a drill string; receiving a reflection of the test signal; and determining from the reflection whether there is an interruption in the electromagnetic connectivity in the transmission path. In general, the apparatus includes a signal generator for generating a test signal into the drill string; a receiver for receiving the reflection of the test signal; and means for determining from the reflection whether there is an interruption in the electromagnetic connectivity in the transmission path. Preferably, a common coil is included through which the test signal generated by the signal generator may be transmitted into a drill string and through which a reflection of the test signal may be received.